

Transformations Design





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Teaching content area(s): Mathematics

School: Pekin High School

Extern host site: John Deere Ottumwa Works

Part I: Overview of Business

- John Deere is a company founded in 1837 with the release of a plow designed for the thick pairie soil.
- The core principles of their business are Integrity, Quality, Commitment, and Innovation. The business motto is "I will never put my name on a product that does not have in it, the best that is in me."- John Deere
- John Deere Ottumwa Works produces balers.

Part II: Job Specifics

- An engineer is someone who designs and builds something to solve a problem.
- Could be a new invention
- Could be an improvement or saftey consideration
- Process take many people working together

Part III: Introduce the Problem

• Students will learn to work in a group setting where each person has a different role, but all have the same goal. The goal is to create a t-shirt design using transformations.

Part IV: Background

- Students need to know the basic transformations
- Students will need to know how to construct different shapes using Desmos or some other program

Part V: Business Solution

•John Deere would have an engineer that comes up with the design. Then other person would decied if it was affordable and adjustments made as necessary. Marketing would take over and advertise. Lastely, consumers would purchase the product.

Part VI: Student Solutions

- Students will really have to know how to construct shapes, which may be difficult for some
- Students may devlope some designs without using transformations
- Some may start with too complicated design, and have to simplify